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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,123	12/07/2001	Takahiro Yamashita	32011-176968	1043

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EXAMINER
NEURAUTER, GEORGE C

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		10/005,123	YAMASHITA ET AL.
		Examiner	Art Unit	
		George C. Neurauter, Jr.	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _11 April 2005_.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1,2 and 6-25_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1,2 and 6-25_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-2 and 6-25 are currently presented and have been examined.

Response to Arguments

Applicant's arguments filed 11 April 2005 have been fully considered but they are not persuasive.

The Applicant argues that Gobuyan does not teach a bit map for referencing a transmission control rule which is not stored in a storage by itself but stored of other search means. The Applicant is referred to the rejections below regarding this limitation.

Claim Objections

Claims 24 and 25 are objected to because of the following informalities:

Claim 24 is missing a period at the end of the claim. See MPEP 601.08(m) ("Each claim begins with a capital letter and ends with a period.")

Claim 25 recites "...wherein said data type is electric mail." "Electric mail" is not described in the specification, however, the Examiner will assume that the limitation "electronic mail", which is disclosed within the specification, is recited instead of "electric mail".

Appropriate correction is required.

Claim Interpretation

The element "transmission control rule" defined on page 7,

line 11-page 8, line 8 of the specification and recited in

claims 1-20 will be given its broadest reasonable interpretation

and will be interpreted by the Examiner as information that sets

the transmission route that is consistent with the disclosures

of the specification and the interpretation that those skilled

in the art would reach. See MPEP § 2111.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35

U.S.C. 112:

> The specification shall conclude with one or more claims particularly
> pointing out and distinctly claiming the subject matter which the applicant
> regards as his invention.

Claims 1-2 and 6-20 are rejected under 35 U.S.C. 112,

second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

Claim 1 recites the limitations "first search means

that...searches for a transmission control rule corresponding to

the destination address", "...second search means that reads

prescribed information...from [a] datagram and that searches for

a transmission control rule corresponding to said prescribed

information", and "wherein each of said search means comprises a

storage for storing said transmission control rule and a bit map

for referencing said transmission control rule which is not

stored in a storage by itself but stored in a storage of other

search means." This claim is unclear since the claim recites two

distinct transmission control rules and it cannot be determined

as to which transmission control rule is stored or not stored on

the first and one or a plurality of second search means since

the claims requires "referencing said transmission control rule

which is not stored in a storage of itself but in a storage of

other search means" and wherein each search means comprises "a

storage for storing said transmission control rule".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs

of 35 U.S.C. 102 that form the basis for the rejections under

this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6-16, and 18-21 are rejected under 35

U.S.C. 102(b) as being anticipated by US Patent 5 917 821 to

Gobuyan et al.

Regarding claim 1, Gobuyan discloses a datagram

transmission device comprising:

first search means (referred to throughout the reference as

"destination address look-up engine" or "DALE") that reads the

destination address from a received datagram and searches for a

transmission control rule ("filter") corresponding to the

destination address; (column 1, lines 24-28; column 2, lines 13-

17 and 40-50; column 3, lines 20-24; column 10, lines 10-17)

one or a plurality of second search means ("source address

look-up engine" or "SALE") (alternatively "microcode engine" or

"LEC") that reads prescribed information other than the

destination address information from said datagram ("source

address") (alternatively "protocol") and that searches for a

transmission control rule ("filter") corresponding to said

prescribed information; (column 1, lines 24-28; column 2, lines

13-17 and 40-50; column 3, lines 20-24; column 10, lines 10-17;

column 11, lines 29-37) (see also "filtering rule tree"; Figure

16)

decision means that respectively inputs search results from

said first and second search means and determines said

transmission control rule contained in the search results of all

of said search means; (column 3, lines 20-28)

execution means that executes transmission control in

accordance with said transmission control rule determined by

said decision means; (column 2, lines 40-50, specifically lines 46-50)

wherein each of said search means comprises a storage for storing said transmission control rule and a bit map ("filtering rule tree"; Figure 16; column 12, line 10) for referencing said transmission control rule which is not stored in a storage of itself but stored in a storage of other search means (column 2, lines 40-50; column 10, lines 10-18)

Regarding claim 2, Gobuyan discloses the datagram transmission device according to claim 1 wherein said first search means and said second search means perform said searches in parallel. (column 2, lines 32-39; column 3, lines 24-28)

Regarding claim 6, Gobuyan discloses the datagram transmission device according to claim 1 wherein said second search means employs information belonging to the third layer in the Open Systems Interconnection (OSI) reference model ("network layer") or a layer above said third layer as said information. (column 2, lines 13-17)

Regarding claim 7, Gobuyan discloses the datagram transmission device according to claim 1 wherein said second search means employs information belonging to the second layer in the Open Systems Interconnection (OSI) reference model ("MAC") as said information. (column 2, lines 13-17)

Regarding claim 8, Gobuyan discloses the datagram transmission device according to claim 7 wherein the information belonging to said second layer is information indicating a virtual channel identifier of asynchronous transfer mode. ("CI"; column 4, lines 59-61)

Regarding claim 9, Gobuyan discloses the datagram transmission device according to claim 8 wherein said transmission control rule is information for deciding a transmission route. ("filter"; column 2, lines 40-50)

Regarding claim 10, Gobuyan discloses the datagram transmission device according to claim 1 wherein said decision means, after inputting all of the search results of said first and second search means, calculates the logical product of these search results, and outputs the result of this calculation as the decision result. (column 3, lines 26-28)

Regarding claim 11, Gobuyan discloses the datagram transmission device according to claim 10 wherein, if said transmission control rule obtained by said first search means includes only transmission route information, said transmission route information is output as the decision result without carrying out said logical product calculation. (column 10, lines 40-44)

Regarding claim 12, Gobuyan discloses the datagram

transmission device according to claim 11 wherein, if it is

ascertained that said transmission control rule obtained by said

first search means includes only transmission route information,

a control signal is output for interrupting the operation of

said second search means. (column 10, lines 40-44)

Regarding claim 13, Gobuyan discloses the datagram

transmission device according to claim 1 wherein, every time

said decision means inputs said transmission control rules as

the search results from said first and second search means not

at one time, calculates the logical product between already

input search results when a prescribed number of said search

results have been input, calculates the logical product between

said logical product and other search result whenever said other

search result is newly input, and outputs the final calculation

result as the decision result. (column 3, lines 14-15 and 26-28)

Regarding claim 14, Gobuyan discloses the datagram

transmission device according to claim 13 wherein, if said

transmission control rule obtained by said first search means

includes only transmission route information, said transmission

route information is output as the decision result without

subsequently performing said logical calculation. (column 10,

lines 40-44)

Regarding claim 15, Gobuyan discloses the datagram transmission device according to claim 14 wherein, if it is ascertained that said transmission control rule obtained by said first search means includes only transmission route information, a control signal is output for interrupting operation of said second search means. (column 10, lines 40-44)

Regarding claim 16, Gobuyan discloses the datagram transmission device according to claim 1, wherein said first and second search means perform searching using a dichotomizing search method. (column 3, lines 14-15)

Regarding claim 18, Gobuyan discloses the datagram transmission device according to claim 1 wherein said datagram transmission device is an Internet protocol router. (column 2, lines 4-17, specifically lines 7-8 and 15)

Regarding claim 19, Gobuyan discloses the datagram transmission device according to claim 1 wherein said datagram transmission device is an Internet protocol switch. (column 2, lines 4-17, specifically lines 7-8 and 15)

Regarding claim 20, Gobuyan discloses the datagram transmission device according to claim 1 wherein said datagram is an Internet protocol packet. (column 2, lines 4-17, specifically lines 7-8 and 15; column 5, lines 27-42)

Claim 21 is rejected since claim 21 recites a datagram

transmission device that contains substantially the same

limitations as recited in claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere*

Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for

establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In

considering patentability of the claims under 35 U.S.C. 103(a),

the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered

therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to

point out the inventor and invention dates of each claim that

was not commonly owned at the time a later invention was made in

order for the examiner to consider the applicability of 35

U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior

art under 35 U.S.C. 103(a).

Claim 17 is rejected under 35 U.S.C. 103(a) as being

unpatentable over Gobuyan et al. in view of Applicant's admitted

prior art, specifically Laidopen Japanese Patent Publication No.

2000-188608.

Regarding claim 17, Gobuyan discloses the datagram

transmission device according to claim 1.

Gobuyan does not expressly disclose wherein said first and

second search means perform searching using the 2^P search method.

It would have been obvious to one of ordinary skill in the

art at the time the invention was made to combine the teachings

of these references since the Applicant discloses that the 2^P

search method speeds up a route search wherein the search of P

branch levels can be performed by a single process and the

search is reduced by a factor of 1/P (page 2, lines 6-12 of the

specification). In view of these specific advantages and that

both references are directed to route searching through the use

of a dichotomizing search method, one of ordinary skill would
have been motivated to combine these references and would have
considered them to be analogous to one another based on their
related fields of endeavor.

Claims 22-25 are rejected under U.S.C. 103(a) as being
unpatentable over Gobuyan in view of "AppSwitch Does Layer 7
Switching" ("AppSwitch").

Regarding claim 22, Gobuyan discloses the datagram
transmission device according to claim 21.

Gobuyan does not expressly disclose wherein said prescribed
information is a type information of the datagram, however,
Gobuyan does disclose the prescribed information as recited in
claim 21.

"AppSwitch" discloses wherein said prescribed information
is a type information of the datagram (page 1, specifically
"...AppSwitch 2000, one of the first Layer 7
switches...[b]ecause the switch operates at Layer 7, it is
application-aware and can prioritize or deny access based on the
application in use on the network, such as e-mail...the key to
AppSwitch's Layer 7 switching capability is deep-packet
analysis, which allows the switch to prioritize the flow of
network traffic by application.")

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since "AppSwitch" discloses that using prescribed information such as a type information of a datagram enables priority switching of datagrams based on a certain type of datagram used by an application (see above). In view of these specific advantages and that the references are directed to transmitting datagrams based on rules that use the information contained within the datagram, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor.

Regarding claim 23, Gobuyan and "AppSwitch" disclose the datagram transmission device according to claim 22.

Gobuyan does not expressly disclose wherein said type information of datagram is the type information of application, however, "AppSwitch" does disclose this limitation page 1, specifically "...AppSwitch 2000, one of the first Layer 7 switches...[b]ecause the switch operates at Layer 7, it is application-aware and can prioritize or deny access based on the application in use on the network, such as e-mail...the key to AppSwitch's Layer 7 switching capability is deep-packet

analysis, which allows the switch to prioritize the flow of network traffic by application.")

Claim 23 is rejected since the motivations regarding the combination of Gobuyan and "AppSwitch" regarding claim 22 also apply to claim 23.

Regarding claim 24, Gobuyan discloses the datagram transmission device according to claim 21.

Gobuyan does not expressly disclose wherein said prescribed information is a data type, however, "AppSwitch" does disclose this limitation (page 1, specifically "...AppSwitch 2000, one of the first Layer 7 switches...[b]ecause the switch operates at Layer 7, it is application-aware and can prioritize or deny access based on the application in use on the network, such as e-mail...the key to AppSwitch's Layer 7 switching capability is deep-packet analysis, which allows the switch to prioritize the flow of network traffic by application.")

Regarding claim 25, Gobuyan and "AppSwtich" disclose the datagram transmission device according to claim 24.

Gobuyan does not expressly disclose wherein said data type is electric mail, however, "AppSwtich does disclose this limitation page 1, specifically "...AppSwitch 2000, one of the first Layer 7 switches...[b]ecause the switch operates at Layer 7, it is application-aware and can prioritize or deny access

based on the application in use on the network, such as e-mail...").

Claim 25 is rejected since the motivations regarding the combination of Gobuyan and "AppSwitch" regarding claim 22 also apply to claim 25.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art teaches reading prescribed information from datagrams for the purposes of transmission control at certain ranges of Open System Interconnection layers, known within the art as "Layer ___ Switching" (e.g. "Layer 2 Switching" or "Layer 3-7 Switching"):

US Patent 6 308 218 to Vasa;

US Patent 6 882 654 to Nelson;

US Patent 6 892 237 to Gai et al.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened

statutory period, then the shortened statutory period will

expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated

from the mailing date of the advisory action.   In no event,

however, will the statutory period for reply expire later than

SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier

communications from the examiner should be directed to George C.

Neurauter, Jr. whose telephone number is (571) 272-3918.   The

examiner can normally be reached on Monday through Friday from

9AM to 5:30PM Eastern.

If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, David Wiley can be

reached on (571) 272-3923.   The fax phone number for the

organization where this application or proceeding is assigned is

703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gcn

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